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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Sung-Joo Park

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EXAMINER

BLACKMAN, ROCHELLE ANN J

ART UNIT

PAPER NUMBER

2862

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/574,705

Applicant(s)

PARK ET AL.

Examiner

Rochelle Blackman

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2862

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 14-17 is/are rejected.
- 7) ☒ Claim(s) 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 4/05/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities: on pg. 31, line 5, "horizontal frame 310" should be - -horizontal frame 220- -.

Appropriate correction is required.

Claim Objections

Claims 1, 15, and 17 are objected to because of the following informalities: in claim 1, on pg. 36, lines 6 and 8 and pg. 37, line 2, "cameral" should be - -camera- -; in claim 17, on pg. 42, line 4, the word - -from- - should inserted between "direction" and "each"; and in claim 17, line 9, "program" between "recording" and the coma, should be - -program of commands- - as later recited in the claim, and in addition, "program of commands" is not positively recited in the claim.

Claim 10 is objected to because it recites the limitation "the sensor " in lines 2 and 3 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 11 is objected to because it is unclear whether the limitation, "horizontally" is part of the claimed invention because it is enclosed in parentheses.

Claim 15 is objected to because it recites the limitation "each hinge " on pg. 42, line 5. There is insufficient antecedent basis for this limitation in the claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-12 and 14-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamaoka (U.S. Patent Application Publication No. 2003/0030636).

Regarding claim 1, Yamaoka discloses a method (see function of element in FIGS. 1-24) for generating 3-dimensional image, in the method to photograph a photographic object (for example see 11 of FIG. 9 and/or 133 of FIG. 14) in order to generate 3-dimensional images by using an image photographing part (see FIG. 9 and/or FIG. 14) comprising a camera part (see 16 of FIG. 9 and/or 122 of FIG. 14), a turn table part (see 28 of FIG. 9 and paragraph [0109]-[0110] and/or 125 of FIG. 14), a photographing angle adjustment part (see 23 and 24 of FIG. 9 and paragraphs [0109]-[0110]), a X-axis adjustment part (16 is attached to 26 and slides along 26 in the direction of horizontal arrow in FIG. 9 – see paragraph [0110] and/or see function of 130 in FIG. 14 and paragraph [p0133]) and a Y-axis adjustment part (26 is attached to 24 and slides in the direction of the vertical arrow in FIG. 9 – see paragraph [0110] and/or see function of 131 and 132 in FIG. 14 and paragraph [0133]) and an image management device (for example, see elements in FIG. 6 and/or FIG. 11) in which the camera part is joined with said photographing angle adjustment part, said x-axis adjustment part and said y-axis adjustment part and said photographic object is placed

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on the top of said turn table part (see 11 on 28 in FIG. 9 and/or see 133 on 125 of FIG. 14), comprising the following steps: (a) transmitting movement control signals from the image management device to a image-photographing part, where said movement control signals comprises camera location control signal, photographing angle control signal and turn table control signal (see paragraph [0112] and see *setting the camera position and direction by personal computer control* in [0113]); (b) that said turn table part stands by in the state of rotating at a fixed speed corresponding to said movement control signal or rotating at a rotation angle corresponding to said movement control signal (see paragraph [0110] and/or [0135] and also see *setting the camera position and direction by personal computer control* in [0113]); (c) that said Y-axis adjustment part adjusts the height of said camera part corresponding to said movement control signal (see FIGS. 7 and 8 and also see *setting the camera position and direction by personal computer control* in [0113]); (d) that said X axis adjustment part adjusts proximate position of said camera part corresponding to said movement control signal, where said proximate position is a distance between said camera part and said photographic object (see FIGS. 7 and 8 and also see *setting the camera position and direction by personal computer control* in [0113]); (e) that said photographing angle adjustment part adjusts a photographing angle of the camera part corresponding to said movement control signal, wherein said photographing angle is an angle that makes the internal central points of said camera part and said photographic object form a straight line (see FIGS. 7 and 8 and also see *setting the camera position and direction by personal computer control* in [0113]); (f) generating digital image by photographing a

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photographic object at said height, said proximate position and said photographing angle adjusted line (see function of 13-1 in FIG. 6 and paragraph [0095], see function of 50 in FIG. 11 and paragraph [0116], FIGS. 7 and 8 and also see *setting the camera position and direction by personal computer control* in [0113]); (g) transmitting said digital image generated to the image management device (see function of *transmitting/receiving apparatus* in paragraph [0086] and *data transmitting apparatus* in paragraph [0095] and [0105] – the *transmitting/receiving apparatus* or *data transmitting apparatus* is also considered to be used in transmitting the *image data* from element 10 to element 20 in FIG. 11 and paragraphs [0115]-[0117]); and (h) repeating from said step (a) to said step (g) until all the digital images are generated in order to generate 3 dimensional image corresponding to said photographic object; wherein, said movement control signal is updated whenever said digital image is generated (this is considered to be a function of the *personal computer control* in [0113] and the *transmitting/receiving apparatus* or *data transmitting apparatus* in paragraphs [086], [0095] and [0105]).

Regarding claim 2, Yamaoka discloses the method for generating 3-dimensional image of claim 1, further comprising the following steps; that image management device stores said digital image; and generating 3-dimensional image by employing said stored plural digital images (see function of 10 and 20 in FIG. 6 and/or 11).

Regarding claim 3, Yamaoka discloses the method for generating 3-dimensional image of claim 2, wherein said digital image is stored corresponding to rotation speed data or rotation angle data of said turn table part, height data of said camera part, and proximate position data of said camera part and said 3-dimensional image is generated

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by employing rotation speed data or rotation angle data of said turn table part, height data of said camera part, and proximate position data of said camera part (see function of 10 and 20 in FIG. 6 and/or 11 and see FIGS. 7 and 8).

Regarding claim 4, Yamaoka discloses the method for generating 3-dimensional image of claim 2, further comprising the following steps: that said image management device displays said 3 dimensional images in a display part (see 21 of FIG. 6 and/or 11); receiving a display status changing command of said 3 dimensional image, where display status changing command is selected from a group consisting of expansion, reduction and rotation; and displaying 3-dimensional image whose display status is changed corresponding to said display status changing command in said display part (see function 21 in FIG. 6 and/or 11 and paragraph [0086] and [0105]).

Regarding claim 5, Yamaoka discloses the method for generating 3-dimensional image of claim 1, wherein said step (a) to said step (g) are performed simultaneously (see function of 10 and 20 in FIG. 6 and/or 11).

Regarding claim 6, Yamaoka discloses the method for generating 3-dimensional image of claim 1, wherein while said turn table part rotates at a fixed speed, said camera part photographs digital images corresponding to all angles of the photographic object at a first height and then, said camera part photographs digital images corresponding to all angles of the photographic object at a second height (see function of elements in FIG. 6 and 14 and see FIGS. 7 and 8).

Regarding claim 7, Yamaoka discloses the method for generating 3-dimensional image of claim 1, wherein while said turn table part stands by with rotating at a first rotating angle, digital images corresponding to all sides of said photographic object are photographed and then, while said turn table part stands by with rotating at a second rotating angle, digital images corresponding to all sides of said photographic object are photographed (see function of elements in FIG. 6 and 14 and see FIGS. 7 and 8).

Regarding claim 8, Yamaoka discloses the method for generating 3-dimensional image of claim 2, wherein said 3-dimensional image is a single compressed file form (see paragraph [0087] – the 3-dimensional image is considered to be a “single compressed file form” when stored in server 31 and accessed by elements 41-44 in FIG. 6 and/or 11)

Regarding claim 9, Yamaoka discloses the method for generating 3-dimensional image of claim 1, wherein said image management device is one selected from the group consisting of computer, mobile communication terminal, and personal digital assistant (PDA) (see FIG. 6 and/or 11 and paragraphs [0107] and [0184]).

Regarding claim 10, Yamaoka discloses the method for generating 3-dimensional image of claim 1, wherein size of said photographic object is determined in accordance with detection signals of the sensor attached to said camera part (this is considered to be a function of the *personal computer control* in [0113]).

Claims 11 and 12 are rejected for the same reasons as applied to claims 1-10.

Regarding claim 14, Yamaoka discloses the system for generating 3-dimensional image of claim 11, wherein said X-axis adjustment part and Y-axis adjustment part comprise multiple joint robot fixed with the camera part at one end thereof (see paragraph [0113]).

Regarding claim 15, Yamaoka discloses the system for generating 3-dimensional image of claim 11, wherein said X-axis adjustment part and Y-axis adjustment part comprise a guide rail (for example, see 24 and 26 of FIG. 9 and see 130 and 129 of FIG. 14), a supporter (see element supporting 16 on 26 by way of 27 and see 26 supported on 24 by way of 25 in FIG. 9 and see 128 and 132 of FIG. 14) fitted with the guide rail and moving along it, a pair of screws (see 25 and 27 of FIG. 9) arranged in a row (see 25 and 27 arranged in a row starting from the edge of 26 where 16 is located towards the end of 24 near 23 in FIG. 9) with the supporter and enable to rotate by a driving means, a pair of sliders (this would be the shaft of 27 extending through 26 and the shaft of 25 extending through 24 in FIG. 9) inserted into the screw and moving in an opposite direction each other of the rotation direction of the screw (see directions of arrows in FIG. 9), a link jointed with each hinge at one ends of the pair of sliders (see connection between 27 and 26 and between 25 and 24 in FIG. 9), and a camera supporting plate (see element supporting "camera" 16 that is attached to 27 and 26 in FIG. 9) jointed with each hinge of the other ends of the link.

Claim 16 is rejected for the same reasons as applied to claims 1-10.

Claim 17 is rejected for the same reasons as applied to claims 1-10.

Allowable Subject Matter

1. Claim 13 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
2. The following is a statement of reasons for the indication of allowable subject matter:

Claim 13 has been found to be allowable because the prior art of record either alone or in combination neither discloses nor makes obvious the system comprising the particular feature of a piston fitted with the cylinder and fixed with the camera part at one end thereof, in combination with the other particular combination of features recited in claim 13, further in combination with the particular combination of features recited in claim 11.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rochelle Blackman whose telephone number is (571) 272-2113. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Assouad can be reached on (571) 272-2210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Rochelle Blackman', with a long horizontal flourish extending to the right.

Rochelle Blackman
Patent Examiner

RB